

No. 239.

CLINICS

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SIMPSON. LECTURES ON THE DISEASES OF WOMEN. 16 PAGES.

CLINICS.

CLINICAL LECTURES.

Clinical Lecture on Scarletina and its Sequelæ.—By T. HILLIER, M D., physician to the Hospital for Sick Children. (Continued from page 209.)

I will conclude by a few words on *Treatment*. In estimating the effects of treatment, it is very important to remember that in this, as in many other diseases, some cases are so severe that no treatment will prevent death; that other cases are so mild that they will recover even if left to themselves, or badly treated; whilst a third set of cases of intermediate severity, if well treated, will recover, and the speed and completeness of their recovery will be influenced by the mode of treatment; but

the same cases, if injudiciously treated, will not recover at all, or recovery will occur only after more protracted illness, and with greater damage to the constitution.

Fully to judge of the value of our treatment, we ought to know how similar cases progress if left to themselves; this our homoeopathic neighbours, if they practise as they profess, might give us an opportunity of observing. We may, of course, learn much by comparing cases treated on one plan with others treated on a different plan; but here, too, we must be careful to compare cases of equal severity, and as nearly as possible alike. We have not arrived at any specific antidote to the poison of scarlatina by which we can either prevent its taking effect, or counteract its influence.

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ence when in operation. As a preventive belladonna has been vaunted, but it has not stood the test of careful experiment. We know of no means of prevention but the avoidance of exposure to the infection.

This disease is frequently spread in public schools by children convalescent from the disease returning too soon after their illness to associate with other children; it is also not uncommonly spread by patients conveyed in cabs and other public vehicles. Medical men should always wash their hands after touching a case of scarlatina, and, if possible, walk some time in the open air, and change their coats, before seeing other children.

Some future Jenner may discover that the inoculation of a disease bearing the same analogy to scarlatina which cowpox does to smallpox, will prove a protection against it. At present all we can do is to combat symptoms as they arise, and help Nature to get rid of the poison. Mild cases of scarlatina require but little medical treatment. The patient should be kept in bed for a fortnight, and not allowed to leave his room for three weeks; the diet should be bland and simple (animal food being forbidden); the bowels may be regulated by mild aperients; the skin may be sponged frequently with tepid water; and the bedroom should be kept cool and well-ventilated. Some simple saline medicine may be given. The plan adopted in this hospital instead of sponging, has been to anoint the whole surface twice a-day with suet. It is grateful to the patient, relieving the sense of tingling and burning heat which is frequently complained of. During convalescence the use of warm baths is indicated. If desquamation is active the hot-air bath is very useful in combination with warm water baths. This measure is especially desirable if there be albumen in the urine and anasarca.

In severer cases, quite at the outset an emetic of ipecacuanha should be given, and if the tongue be much coated an aperient dose of rhubarb and sulphate of potash may follow at the end of twelve hours. In the malignant cases, with much depression and sensorial disturbance from the first, the emetic and aperient should be omitted. In these cases, I believe, the best medicine to give is the sesquicarbonate of ammonia; and to promote the action of the skin, it may be combined with a good dose, one

or two drachms, of liq. ammonia acetatis. The carbonate of ammonia may be given in doses of two, three, four, or five grains, according to the age of the child, and with frequency proportioned to the severity of the case.

In cases where the nervous symptoms predominate, such as delirium and convulsions, and the heat of skin is very great, a remedy has been recommended, which I have only tried once, but on that occasion it certainly seemed to do good. It was first recommended by Currie, and has since been occasionally praised by others; it is spoken of very favourably by M. Trousseau. I refer to cold affusions. They have been less frequently resorted to than they probably otherwise would have been, owing to the apparent boldness of the practice, and its running counter to popular prejudice on the subject. Trousseau says: "For a long time I have employed these affusions. I declare to you that I have never administered them without deriving from them some benefit. I do not pretend that all my patients have been cured; those who have died have experienced temporary relief; the affusion, far from being injurious to them, has always moderated the symptoms, and has always appeared to retard the fatal issue." He then quotes several very severe cases in which this practice was attended with apparently the greatest benefit, and the patients made favourable recoveries.

His mode of proceeding is as follows: The patient is placed in an empty bath, and there are thrown on him three or four pails of water of a temperature from 68° to 77° Fahr. The patient is immediately afterwards wrapped in bedclothes, and placed on the bed without being wiped, but suitably covered up. Generally reaction is established before fifteen or twenty minutes have elapsed. The affusions are renewed once or twice in twenty-four hours, according to the gravity of the symptoms.

The benefits derived from this treatment, according to Trousseau, are a reduction of the frequency of the pulse, a lowering of temperature, a cessation of delirium, and a diminution of the patient's restlessness and general distress. He also states that it usually renders the eruption more vivid, and never has the effect of "striking in" the rash, as it is called.

In the case in which I employed it there

had been delirium and restlessness, and great heat of skin; there was no rash. The affusion was practised with water at a temperature of about 80° . The patient expressed herself as feeling much more comfortable a few minutes after the treatment; the temperature three hours later was nearly as high as before, but the skin did not feel so pungent or so dry. From this time the patient continued to improve without an unfavourable symptom. It is true that the treatment was here applied about a date when improvement frequently occurs—namely, on the sixth day of the disease; but I confess that I have not often seen a case suddenly take such a decidedly favourable turn on any other plan of treatment. I intend, when another suitable case presents itself, to make a further trial of this remedy. As originally practised by Currie, the water used was of a lower temperature (the coldest he could procure), and affusion was repeated every two or three hours if the patient's symptoms called for it. Where the heat of skin was not so great, tepid water was used. This remedy is not applicable to cases where reaction is not well established, as in cases of extreme malignancy. The wet sheet I have tried in two cases, with satisfactory results.

As the fever subsides, and the patient is left languid with a pulse soft and slower, and skin cool, quinine is very useful.

The throat, if much involved, will require treatment. For mild cases a gargle of lemon juice and honey is agreeable and useful. For redness and swelling the use of chlorate of potash in solution (eight or ten grains to the ounce) is advisable, either as a gargle, or, if the child be too young, as a wash to be injected into the mouth with the patient sitting up. If there be much swelling, the employment of tannin, either by insufflation as a powder, or in solution as a wash, is beneficial. Ice may also be given with benefit. If the tint be somewhat livid and dusky, tincture of cascum may be advantageously added to the gargle. This remedy is strongly recommended internally by some writers on malignant scarlatina. Externally it is well to keep warm-water dressing, a bran poultice, or spungio piline around the throat. If the nose and mouth become clogged, it is important that they be syringed out frequently with warm water, or soap and water, followed by a weak solution of

sulphate of copper in a few days, to prevent obstruction to respiration. If the secretion is thin and acrid, lime-water is best. In some cases, where the pulse is soft and frequent, and there is much depression, it is well to give wine from the first; and very often about the fifth day, when the tongue becomes dry, and the pulse becomes weak and falls in frequency, wine will be required if it has been withheld before. The effect of stimulants on the urinary secretion should be carefully noted, and if there be albumen in the urine, and a notable reduction in the quantity of urinary solids, they must be withheld. When there is much swelling of the neck coming on after the first week of the fever, stimulants are, I believe, indicated, and poultices should be applied externally. No good has been derived in these cases from the use of leeches. If matter forms early, lancing is desirable. For albuminuria or hæmaturia, with or without dropsy at the commencement, the great indication is to obtain a free action of the skin. This may be generally secured by small doses of antimonial wine with liquor ammoniæ acetatis, and the employment of the hot-air bath every night. It is well, too, to act on the bowels every second or third day by the use of compound jalap powder. Diluents, such as barley-water, toast-and-water, should be freely given. If there be much fever, and a tolerably firm pulse at the onset of the renal symptoms, cupping to the loins will probably be of service, and in any case dry cupping will do good. As the fever subsides, if the urine be tolerably abundant and of good specific gravity, but still contain albumen, the use of benzoate of ammonia, in five grain doses, seems to be of use; or if this fail, the tincture of the sesquichloride of iron will generally be of use. Sometimes it will be necessary to suspend these remedies, owing to an increase in the albumen and a smoky colour of the water with a scantiness in amount, and to return to the hot-air baths and diaphoretics. The only diuretics besides benzoic acid that are allowable in this affection are, I believe, diluent drinks and digitalis, which appear to be of service when the pulse is quick and heat of skin considerable. Never rest satisfied or think your patient out of danger so long as albumen or still more blood remains in the urine; at any time while this lasts, one of the

secondary inflammations or convulsions may set in, and rapidly carry him off.

If convulsions occur, and the patient be not previously very anæmic, bloodletting must be resorted to once and to a good quantity. This may be followed up by dry-cupping to the loins, hot-air baths, and compound jalap powder or elaterium. Trousseau recommends large blisters to the legs; most English authors forbid blistering in any shape, from the fear that cantharides will act injuriously on the already impaired kidneys. They have been so frequently used beneficially, that this theoretical objection to their employment need not, I think, have much weight. "I am not aware that their use has ever been followed by increase of the renal symptoms."

If pleurisy set in, or pneumonia, I advise cupping, with or without the knives, according to the force of the pulse; and the subsequent cautious employment of calomel in small frequently-repeated doses. Here, again, I run counter to a commonly-received doctrine that calomel should not be given in albuminuria; my experience, however, inclines me to believe that in the early periods of nephritis, before renal degeneration has much advanced, there is no risk but positive benefit from its use. If there be much restlessness or distress, the calomel should be combined with Dover's powder. At the same time liq. ammoniac acetatis and, if the pulse be firm, small doses of antimonial wine may be given. In peritonitis, I believe that opium, with very small doses of mercury, is the sheet anchor. In one very severe case, in which a lady had scarlatina immediately after parturition, followed by peritonitis, the recovery appeared to be entirely due to the use of opium in full doses, combined with small doses of gray powder, until the gums were slightly affected.—*Med. Times and Gaz.*, June 28, 1862.

Clinical Lecture on Scirrhus Cancer of the Breast.—By JAMES PAGET, F. R. C. S. The present lecture was devoted to the consideration of the reasons for operating in mammary cancer, and the grounds on which to select appropriate cases.

Mr. Paget remarked that some recommend operation in nearly every case, and some will operate in none. Both have some truth in their arguments, both have

much that is good in their practice, but it is possible to obtain the good of both sides without adopting the too general rule of either. There can be no doubt that the greatest measure of good may be done by making a careful selection of cases fit for operation and rejecting all the rest.

It is necessary to consider first what are the objections to the operation, and to—

1. The excision of the breast. They are chiefly, and almost alone, that the patient may die in consequence of it. Mr. Paget believed that in any large number of cases, even of those selected with some care, it may be feared that one patient in every ten will thus die, of pyæmia, or erysipelas, or tetanus, or secondary hemorrhage, or some calamity following the operation. And this must be no trivial consideration, for in every such case the operation destroys in a week or two a life which, but for it, might have lasted as many years.

Nor, according to some, is this all: for it is said that when the disease returns after operation it makes so much more rapid progress than if it had been left alone, that the operation shortens the lives of even those whom it does not kill outright. It cannot, perhaps, be denied that this may be true of some cases in the selection of which no judgment is exercised; but, on the whole, taking the results of some hundreds of cases, it is certain that the average duration of life in those operated on is not less than in those in whom the disease runs its course: rather, in well selected cases it will be found always greater. In a recent tabulation of hospital and private cases, 85 cases operated on lived an average of 55.6 months, and 62 cases not operated on lived an average of 43 months. And some such proportion as this will probably be always found.

It has been objected, too, that the recurrent disease, even if not more rapidly fatal than the uninterrupted disease would be, is more painful. But this is certainly not generally true. In very many cases—in the large majority—the recurrent disease is much less severe than the continued disease would, in the same time, have become; it is only in a very few that we can fairly expect it to be worse. It can scarcely be urged that the pain of the operation or of its consequences is an objection; for, with chloroform, the pain of the one is

null, and, with simple dressing, that of the other is really trivial. It may, therefore, be safely held, that the only material objection (but it is a very serious one) to the operation is, that a patient runs a risk of one in ten of dying from it; in other words, it is only about nine to one that she will recover from the effects of the operation.

What, then, does the operation offer that can make it advisable for a patient to incur this risk of dying? Does it offer to any one a reasonable hope of an indefinite prolongation of life, and freedom from the same disease? No; the recurrence of cancer of the breast after operation may be held to be as certain as anything in surgery. The question is thus narrowed; we must in every case expect the recurrence of disease; and this is likely to occur at such a time after the operation that, speaking generally, and on the average, the patient will not rarely die of cancer nearly as soon after the operation as if the disease had been left to its own course.

Can it, therefore, be reasonable to submit a patient to the risk of dying within a month, perhaps in a week, for the sake of that interval of health which will or may exist between the operation and the recurrence of the disease, and for a good probability of adding a year to life, and of having a less severe disease? The answer must depend, chiefly, on the probable length of this interval before the recurrence. The average is little more than thirteen months; more than one-half return within twelve months; about two-fifths return within six months. Is this average worth the average risk of life? Consider, when no operation is performed, the pain and anxiety—the pain likely to increase daily—the misery of waking every day to the consciousness of an incurable disease; the sometimes loathsomeness; the restlessness for cure;—cure, such as there are never wanting dishonest men to promise. The average expectation of such relief seems worth the average risk, but not more. Look well, therefore, to the general condition of patients before deciding.

The average interval between the operation and the return of disease is, as has been said, about thirteen to fourteen months; but the extremes, between which the average is drawn, are very wide apart. In some cases the return may be within three

months; in some not for ten, twelve, or more years.

It is, therefore, of great importance to be able to decide in what cases the risk of life is greater, and in what the probability of speedy return of the disease is greater, than the average.

For the first, there are no other rules for cancer than for other cases requiring large operations. These are some of the "doubly hazardous": The old, after 60; the very large-breasted; the fat and plethoric; the cachectic; the overfed on animal food; the drunkards; the gouty; the habitually bronchitic; the albuminuric; the very dejected, not merely timid; and, in short, those with any organic disease of internal organs; and, after middle age, these increase very much in their proportion.

And for the probabilities of rapid recurrence, these are, "bad cases." Acute cancers, i.e., all that have been rapid in progress; for those which increase very quickly before the operation, are certain to recur quickly after it. This, however, may be no sufficient objection, for great pain may often be saved by its performance. Mr. Paget said that he remembered such a case in a lady, whose breast he removed when she was five months advanced in pregnancy. She recovered well from the operation, and the benefit procured by its performance was very great; she went to her full term, bore her child, and was able to suckle it for a year before she died, with her most anxious wish fulfilled in comparative comfort.

Another condition unfavourable to operation is a brawny skin with firm œdema and wide open hair-follicles, or wide adhesion of skin; so is that in which the skin is extensively cancerous, or where there are little scattered tubercles of cancer in the glands and skin; or where there is considerable affection of the lymph-glands in the axilla, especially numerous diseased glands. A moderate amount, however, of lymphatic disease is no serious obstacle to an operation. But supra-clavicular disease should be an almost absolute bar against it.

Mr. Paget here adverted to the best manner of detecting cancerous lymphatic disease in this situation, and said that in cases where it is impossible to make out satisfactorily, by touch, the presence of

enlarged glands, a difference of outline may be often seen by bringing the eyes to the same level with the part, and comparing the two sides; an uplifting of the integuments being often caused by the presence of swollen glands too deep or small to be felt.

Cases in which cancer attacks the upper half of the breast are generally bad; and those in which the lower part of the gland is affected are among the best. Cancer simultaneously affecting both breasts, is seldom or never to be operated on, for the risk is greater, and the advantage not greater.

There are, again, certain cases in which an operation is needless: such are the very chronic—where the breast is small, shrivelled, knotty, and sunk down on the pectoral muscle. Patients with disease of this kind will live many years, probably, with no increase of trouble, and with but little inconvenience.

Mr. Paget concluded this part of the subject by summing up the advantages on each side, and said that the statements which he had made were taken from general averages, and that from such alone could any general conclusion be drawn. To deal with single cases is but a sort of surgical gambling. One man may tell of a case where no operation was performed, and the patient lived for twenty years; and another will tell of a life prolonged for almost the same time after operation; each statement quite true, but neither of them of any useful application. To reckon from such cases is mere gambling; and, as in gambling of other kinds, the best luck at first brings the worst grief at last.

In a second lecture on this subject, Mr. Paget proceeded to consider the treatment of cancer of the breast with caustics. This method of extirpation may be regarded as supplemental to excision. There is at the present time a patient in Sirwell Ward who is being treated in this way, and whose case gave occasion to these and the foregoing remarks. To state what may be a guide to the choice of cases for employing this rather than excision:—the objection to cutting is the risk to life. This risk is with caustics less. It is often said to be none, but this is an error. Death sometimes happens not by pyæmia or any such maledy, but through severity of suffering, hemorrhage, too great exhaustion, etc.

Mr. Paget said he had known three cases in one special practitioner's hands, of death in a month or little more from the commencement, and through the effects, of this treatment. But say the risk to life is only half that of cutting; why not, for this advantage, always choose caustics? These are the objections: The treatment is fearfully painful. The means of alleviation are very insufficient. It may be mitigated, indeed, by opiates or injection of morphia beneath the skin, but not materially. In neuralgic patients, especially, the pain is utterly intolerable; but cutting not more dangerous than in the average. A second objection is the danger of incompleteness, through loss of health, or local inflammation, making the rate of progress of the cancer greater than that of the destruction by the caustic, or through leaving an open, inflamed, and, consequently, worse form of cancer.

There is the danger, also, of irritating the lymph-glands, and so making them more liable to be affected by cancer; and there is the danger of very rapid return even after complete removal of the primary tumour. It has, indeed, been said by those who pretend to cure cancer thoroughly by this method, that no recurrence takes place; than which nothing can be more false. There are no reliable statistics to decide the rate of return, but it is certainly not less, and is, probably, more rapid than that after excision; from some of the gland, in which the disease will most probably return, being left—and left not uninjured after the inflammation, etc., which has been set up in the neighbouring tissues.

These are, altogether, such serious objections, that caustics are very rarely to be preferred to excision, except in some of those cases in which, as enumerated in the last lecture, excision would be attended with much more than the average risk of life; for the constitutional maladies which greatly increase the risk of cutting do not, except very rarely, increase the risk of caustics. Many local conditions forbid the use of caustics—as a very large cancer, a decidedly acute one (for this will almost certainly run ahead), a very widely-affected skin, general œdema of skin, scattered tubercles, nearly all degrees of disease of glands, all supra-clavicular disease, widespread ulceration, etc. But these are left as more fit for caustics than for cutting—

many of the small cancers, especially in the unhealthy or diseased, many of the recurrent, the exuberant, some of the ulcerated, some of the adherent.

In conclusion, Mr. Paget said he believed, that by selecting with care, on the one hand, cases for excision, refusing those in which the operation would be attended with more than a proper share of danger; and, on the other, by using caustics where, from their smaller risk, etc., they would be more appropriate, the life of a large number of those who suffer from cancer may be considerably prolonged, and more even than any present statistics would show.—*Med. Times and Gaz.*, Sept. 27th, 1862.

Clinical Remarks on a Case of Temporary Paralysis of the Accommodation of the Eye.—W. R.—, aged 11 years, a delicate, pale, but bright and intelligent-looking lad, was brought by his father to the hospital on August 29th, on account of what appeared to be a great and sudden impairment of the vision of both eyes. His history was, that up to a fortnight ago he had always had good sight, and could read and write with perfect ease. Six weeks ago he had a low fever, from which he made a fair recovery, but was considerably reduced by it. One day, shortly after his illness, he discovered, on attempting to read, that he was unable to do so, but that he was able to distinguish objects at a distance. Examined with Jaeger's test types, he could only read No. 16, or two-line great primer type; but he could with facility tell the hour of the clock at a distance of twenty-six feet. When reading No. 16, his near point was fifteen inches. With a twenty-four inch focus convex glass he could read at "a foot" No. 12 of Jaeger's test type; eighteen inch ditto, No. 8 test type; twelve inch ditto, No. 4 test-type; nine inch ditto, No. 1 test-type. At Dr. Bader's suggestion he was made to look at distant objects—large type, No. 20, placed at a distance of twenty feet, through a bi-concave lens, so as to ascertain what amount of concavity the accommodative power of his eyes was able to overcome. Good ordinary eyes can, with an effort, see distant objects, although diminished in size, through a bi-concave glass of six, five, or even of four inches and a half focus. The object at first is scarcely seen through such a lens, but by a strain of the accommodative

powers it soon becomes just visible, and at last perfectly clear. This lad was only able to overcome a thirty inch concave lens, showing how little, if any, accommodative power he possessed. He was treated with purgatives, iron, good diet, and perfect rest to the eyes, with occasional cold sponging to them. He rapidly improved, and on September 19th he was able to read No. 1 perfectly with either eye, and could see as well as ever he did.

The following clinical remarks were made by Mr. Lawson: "In *The Lancet* of May 11th, 1861, I published, with some remarks, four cases similar to the above, under the heading of 'Temporary Paralysis of the Ciliary Muscle,' and showed that this peculiar affection would manifest itself after various illnesses. That it occurs more frequently after diphtheria I am willing to believe, as from the reports of those who have had many cases of diphtheria under their care, a temporary loss of, or great impairment in, the accommodating power of the eyes is not a very unfrequent result. But any debilitating illness seems to have a similar effect. This affection is not limited to children, although they much more frequently suffer than adults; for one of the cases I first recorded was in an officer, twenty-six years of age, who had suffered severely from fever. The prognosis, I think, may be favourable; for although I have not met with more than six or eight cases, yet under proper treatment they have all speedily recovered."—*Lancet*, Oct. 4, 1862.

HOSPITAL NOTES AND GLEANINGS.

Mode of Action of the Anti-ligature Forceps and Intracisors; their value demonstrated.—At the operations performed at St. Bartholomew's Hospital by Mr. Lawrence, Mr. Savory, and Mr. Callender on the 23d of Aug. several continental medical gentlemen of eminence were present. After discussing various matters with them, Mr. Lawrence took the opportunity of showing and explaining to them the *modus operandi* of the antiligature forceps and intracisors invented by Mr. Webber, of Tunbridge Wells: the former for arresting hemorrhage from divided vessels; the latter for stopping the current of blood

through them, especially in cases of aneurism.

The action of the intracisors was afterwards illustrated and remarked upon by Mr. Savory, who, addressing the surgeons and pupils assembled, said: "Gentlemen, this portion of the femoral artery, just taken from the limb you saw me amputate a few minutes since, has been subjected to a sudden, firm, but only momentary grip of the intracisors, contrived by Mr. Webber for the purpose of obviating the necessity of employing the ligature hitherto ordinarily had recourse to. I send round for your inspection the instrument and the artery (which has been slit open) to show the effect produced upon it by the intracisors. You will see that while the inner coats throughout the whole circumference of the artery are as completely cut through as they could possibly have been by a ligature, the outer coat remains quite entire. Not only is the pain of constriction avoided, and other evil consequences which not uncommonly arise from strangulation by the ligature, and the process by which it is eventually got rid of, but the outer coat not being severed or materially damaged, no secondary hemorrhage can take place, and nothing is left to prevent the wound healing by the first intention. I need scarcely tell you, that as long as the inner coat of a vessel remains smooth, so long will the blood pass freely and continuously along its channel; but if by any means a roughness of the inner coat is brought about, a mechanical impediment is at once presented to the flow of blood over it, fibrination follows, and occlusion of the vessel takes place. The instrument unquestionably does its work perfectly." Mr. Savory then proceeded to operate upon the next patient, who had been given chloroform in the meanwhile.

We learn from a printed hospital report, that since their first introduction ten years ago, Mr. Webber has used these instruments upon upwards of 300 arteries and veins of large size, in the presence of Mr. Skey, Mr. Holmes Coote, and other surgeons in London and the country; but it does not seem that they have ever been generally employed.—*Lancet*, Sept. 27, 1862.

Chancre in the Thumb of a Midwife; Secondary Rash, Sore-throat, and Iritis.—

Mrs. I—, wt. thirty-eight, applied at the London Royal Ophthalmic Hospital, June 26. She had acute iritis of the left eye of one week's duration. Her arms were found to be covered with coppery stains, left by a fading rash. In both tonsils were kidney-shaped ulcers, now healing. She said that she was a midwife, and that she had poisoned her right thumb. A troublesome sore formed, and about a month afterwards the rash and sore-throat appeared. She had had hard glands above the elbow and in one armpit, but these had now subsided. The sore on the right thumb was still open, and the nail somewhat loose. The latter had been cut away at the lower part. The end of the thumb was much swollen, and a large granulating surface was exposed. There was no specific hardness of the edges, and indeed the condition could not have been distinguished from that seen in some forms of onychia maligna.

Inquiries were made as to any sores on the genitals, but the existence of such was denied; and as the date of the sore on the thumb and those of the rash and iritis exactly fitted with what is usual in the sequence of primary and secondary symptoms, no doubt was entertained that the denial was truthful. The patient expressed the utmost willingness to submit to an examination. She subsequently brought the prescriptions which had previously been given. They did not include any specific remedy, and the sore on the thumb had evidently been regarded as an ordinary whitlow.

Under mercurial treatment the iritis rapidly subsided, the thumb healed, and what remained of the rash disappeared.

The case is not without its interest, as an instance of true syphilis treated in its early stages without mercury. In spite of the omission of this remedy, the disease of the throat, the iritis, and the rash were all of them mild, and both the former were subsiding steadily before the mercurial was given. The specific effect of the latter, in procuring the disappearance of the iritis and the healing of the ulcer on the thumb, was, however, most marked.—*Lancet*, Sept. 27, 1862.

Deceptive Appearance of Fluctuation.—

M. NISLTON took the occasion of a recent case to draw the attention of his class to an

important point in practice. The superficial muscles and tendons of the forearm had been divided by a circular saw, and after the accident an unsuccessful attempt had been made to unite the parts by first intention. In such accidents this does not take place, and the endeavour to procure it may be mischievous. But the following is the practical point alluded to: The dorsal surface of the hand was much tumefied, and the fluctuation seemed so evident that most persons would believe in the existence of a purulent collection. This, however, did not exist, and M. Nefelon observed that there are certain parts of the body in which the tissues exhibit a deceptive sensation of fluctuation. For the upper extremity these points are the dorsal surface of the hand and the superior and exterior portion of the forearm, on a level with the head of the radius; and if deceived by the appearance, we puncture here, blood only follows. This error has been committed hundreds of times for apparent collections in the substance of the calf, and at the upper and outer part of the thigh at the point corresponding to the tensor muscle of the *fascia lata*, and at its upper and inner part on a level with the passage of the psoas and iliacus muscles.—*Med. Times and Gaz.*, Sept. 27th, 1862, from *Presse Belge*, No. 36.

Belladonna in Epilepsy.—At the Hospital for the Epileptic and Paralyzed, belladonna and its alkaloid, atropia, are still in favour as remedies for epilepsy. Under these remedies most patients with epilepsy, especially if they suffer much between the paroxysms, are benefited.

In treating epilepsy we must remember that, although in many cases we may not be able to cure, we can very often diminish the number of fits; and even if we cannot do that, the patient's general condition is often much improved. Many patients attend the hospital who have had fits for very many years, and though they have no hope of being cured, they, nevertheless, experience great benefit, and are rendered capable of resuming a comparatively active life. Although this is not a cure, it is the next best thing to it.

The prescription generally used is—Extract of belladonna a quarter of a grain, quinia one grain, in a pill three times a day. Of atropine, one $\frac{1}{16}$ th of a grain is given

three times a day. Of both, the dose is gradually increased. Although given in increased doses, they are rarely observed to produce, in epilepsy much physiological effect. Sometimes, however, the patients complain of dryness in the throat, and of defective sight. We think it will be noticed that patients with dark eyes suffer more from it, and that these patients are often hypermetropic.

When the sight is affected by belladonna or atropine, it is because the ciliary muscle is paralyzed partially or totally, and hence that the power of accommodation is impaired, or altogether lost. It is not likely that it is due to dilatation of the pupil, as in congenital iridodermia the accommodation is good, and in a case recorded by Graefe, in which the whole of the iris was removed by operation, it remained perfect. It was lost, however, when atropine was put into the eye.

Patients, of course, complain a good deal when their sight is impaired, however little, by any course of treatment, but they can be assured that the defect is only temporary. In some cases of cataract belladonna has been used for years without injury to the eyes, and without losing its powers.

In no case have we noticed dulness of hearing to be produced by this drug. Very likely there may be some slight impairment of hearing which the patient does not notice. Very often there is tinnitus aurium, and some little defect of hearing attending it, but this is common in epilepsy whether belladonna be given or not. We have not noticed that patients have complained of increase of deafness under its use. If a solution of atropine were dropped into the ear it might then paralyze the small muscles of the ear, and produce defective accommodation for sound, if such a phrase is allowable.

Another method in which Dr. Brown-Séquard uses atropine in epilepsy is to inject a solution of it and morphia into the part from which an aura starts. This was done in several cases with excellent results. A solution containing one-sixtieth of a grain of atropine and a quarter of a grain of morphia is injected with Wood's syringe. In the several cases in which it was used it did not produce any immediate effect in the patients, and no giddiness, etc. The operation is not painful.

It is supposed that belladonna acts on the

bloodvessels producing contraction. Ergot, also, Dr. Brown-Séquard believes, has this property; and hence their use in local inflammatory conditions of the brain or spinal cord. Ergot, he believes, has a greater action on the vessels of the spinal cord, and belladonna on those of the brain. In paraplegia from myelitis, a pill containing three grains of fresh ergot and a quarter of a grain of the extract of belladonna is given three times a day. The action of belladonna in arresting the flow of milk, and in causing dryness of the throat, may be explained also on the hypothesis of its diminishing the supply of blood to those parts.—*Med. Times and Gaz.*, Oct. 11, 1862.

Opium, Codeia, etc., in Sleeplessness.—The profuse administration of opium in delirium tremens is not so common as it was. It appears to be recognized that, as Dr. C. J. B. Williams points out in his "Principles of Medicine," that there is a condition in which a patient is "too weak to sleep," and that, therefore, the best plan to induce sleep is not to attempt to tyrannize over the nervous system by opium, but to support the patient by tonics, and stimulants, and nutrients; then, when the patient is strong enough to bear it, opium may be given. We write these remarks, not in reference to any recent case, but to some which occurred in the hospital some time ago.

Dr. Brown-Séquard sometimes gives codeia in cases in which it is important to produce sleep. If we wished blindly to compel sleep, opium would be our remedy; but many can, no doubt, call to mind cases of death in delirium tremens after the profuse administration of opium. "Apoplexy with contracted pupil" is, we believe, the name given to such deaths. Again, in cases where we feel justified in giving opium to induce sleep, the manifest disadvantages of doing this at the risk of producing dyspepsia, constipation, and symptoms of "congestion of the brain," make the choice of some other narcotic desirable. In one case in which codeia, one of the alkaloids of opium, was given, it produced sleep, and was not followed by any of the disagreeable symptoms of confusion in the head, which the patient complained of after taking morphia. It is stated by Dr. Neligan to be half the strength of opium only; but in this case it produced, in similar doses, precisely the

effect of an equal quantity of morphia. The dose given was two-thirds of a grain, in pill. Codeia is contained in much smaller quantity in opium than morphia; so that in prescribing opium equivalent to a grain of morphia, we give only one-sixteenth to one-thirtieth of a grain of codeia.

At the Middlesex Hospital Dr. Goodfellow employs the plan of subcutaneous injection of opium, in order to get the patient to sleep in delirium tremens. He thinks that it acts more quickly, and produces less constitutional disturbance than the plan of administering it by the mouth. Of course he employs other means, both dietetic and medical.—*Med. Times and Gaz.*, Oct. 11, 1862.

MEDICAL NEWS.

DOMESTIC INTELLIGENCE.

Poisoning by Opium—Belladonna as an Antidote.—Dr. I. D. HOPKINS reports (*Buffalo Med. and Surg. Journ.*, October, 1862) the following case:—

"Ida Clifford, aged twenty, was admitted into the City Hospital on the 23d of July last, at 5 o'clock P. M. I was informed that she had purchased xx grs. of opium about 9 o'clock A. M. When I arrived at 6 o'clock P. M. I found her quite insensible, breathing heavily, pupils contracted to a point, skin cold and moist; pulse was feeble and scarcely perceptible. Being confident that the time for emetics and the stomach pump had passed, it became necessary to resort to some antidote that would reach the absorbed poison in the circulation; and testimony favouring belladonna, I administered 3j of that tinct., and ordered 3ss every two hours. In the morning I found her quite smart."

Medical Department of the University of Michigan.—We are informed that there are, at the present season, over two hundred students in attendance on the lectures in this Institution.

The course extends through six months. The organization of this University is peculiar. Being largely endowed, the faculty are paid a fixed salary and the tuition is free.

United States Hospital at Chestnut Hill.—Dr. JOSEPH HOPKINSON, who has dis-

played remarkable administrative abilities in the organization and management of the Military Hospital at South and 24th Streets, Philadelphia, is to have charge of the large new Government Military Hospital now being erected near Mermaid Station, on the Chestnut Hill Railroad. We are very confident that under his direction it will be a model hospital.

Munificent Donation to the United States Sanitary Commission.—The city of San Francisco, California, has sent to the United States Sanitary Commission one hundred thousand dollars. This munificent donation is most opportune, and will enable the commission to largely increase the comforts of the sick and wounded of our heroic army.

American Pharmaceutical Association.—The Tenth Annual Meeting of this body was held in Philadelphia, on the 27th, 28th and 29th of August, 1862.

The following officers were elected:—

President—WILLIAM PROCTOR, Jr., Philadelphia.

Vice-Presidents—JOHN MILHAU, of New York; EUGENE L. MASSOT, of Missouri; J. FARIS MOORE, of Maryland.

Treasurer—HENRY HAVILAND, of New York.

Recording Secretary—P. W. BEDFORD, of New York.

Corresponding Secretary—JOHN M. MAISCH, of Brooklyn, New York.

Executive Committee—EDWARD PARRISH, Chairman, Philadelphia; HENRY F. FISH, Waterbury, Connecticut; WM. J. M. GORDON, Cincinnati, Ohio; SAMUEL M. COLCORD, Boston, Mass.; P. W. BEDFORD, *Sec'y ex-off.*, New York City.

Committee on the Progress of Pharmacy—FERDINAND F. MAYER, New York City; W. NEERGAARD, New York City; J. JACOB THOMSEN, Baltimore, Md.; E. W. SACKRIDER, Cleveland, Ohio; JOHN M. MAISCH, *Cor. Sec. ex-off.*

After transacting a large amount of important business the Association adjourned to the 2d Tuesday in Sept. 1863, at such place as the President and Executive Committee may determine upon.

OBITUARY RECORD.—Died, October 11, 1862, in New York, Dr. JOHN C. CHESK-

MAN, an eminent practitioner of that city, in the 75th year of his age.

Died, near Sharpsburg, Sept. 17th, 1862, Dr. WILLIAM J. H. WHITE, Medical Director of Major-General Franklin's Army Corps, in the 36th year of his age.

FOREIGN INTELLIGENCE.

Causes of Failure of Extraction for Cataract.—Prof. ARLT, of Vienna, made a communication on this subject to the Medical Section of the Congress of German Naturalists and Physicians at its late meeting at Carlsbad. He stated that, even if the operation was well done, vision might yet be destroyed, either by want of caution in the patient himself, whereby the union of the wound was endangered, or by incomplete removal of the cataract. As regards the first point, he mentioned that the movements of the eyelids were chiefly influential in preventing union, and recommended, instead of the ordinary English plaster, the charpie-bandage, which facilitated the inspection of the patient's eye, if he complained of pain, etc. Concerning the second point, the professor remarked that, if the cataract was not yet matured, or too much so, small pieces of the cortical substance of the lens were frequently left behind. These did not cause opacity and tumescence of the cornea, as was generally believed, but effusion of the aqueous humour, irido-choroiditis, and finally panophthalmitis. The first symptom of this was an opacity resembling arcus senilis. In order to prevent such accidents, Professor Arlt has successfully resorted to iridectomy after extraction, if the cataract was not mature or had been fluidified; but if inflammation of the whole eyeball had set in, a compressive bandage was the best remedy, whereby, it is true, vision was not saved, but at least the cornea and the substance of the eye were preserved.—*Med. Times and Gaz.*, Oct. 4, 1862.

Subcutaneous Injection of Quinia.—Dr. JAMES M'CRAITH addresses the following letter to the editor of the *Med. Times and Gaz.*

SIR: I have to report a discovery, or what is tantamount thereto, of very great importance in my estimation, made by my friend and *confrère* here, Dr. Chasscaud, who is

Physician to the Hôpital de St. Antonio, of this city. I am surgeon to the operatives engaged on the Smyrna and Aidin Railroad, in course of construction at present here. This railroad passes through parts of this country as rife in malaria as the Pontine Marshes themselves. The number of the workmen attacked by intermittent fever, often of severest type, is very great; which you will allow when I state that at present from forty to sixty are in hospital suffering from intermittent fever. These are naturally the worst cases, many of them treated ineffectually on the works, and sent to Smyrna as such for hospital treatment. Seeing the immense expense of sulph. quinia, the frequent difficulty and occasional danger of the large doses necessary in this climate, Dr. Chasseaud cast about, as many others have done before, to find some means of obviating those difficulties. He began a series of subcutaneous injections, and was most grateful to find his success complete. The effect of one or two grains of quinia in solution, injected into the cellular tissue of the arm, being equally efficient in arresting fever, if not more efficient than the scruple doses hitherto found necessary. This method is also free from the inconvenience of the large dose taken by the mouth—vomiting, diarrhoea, and gastric symptoms often rendering the exhibition of large doses by the stomach ineffectual, difficult and hazardous.

Now, a substitute for quinia has been sought for ineffectually ever since the discovery of this most valuable and now necessary or indispensable specific. Now, if Dr. Chasseaud's application of it prove satisfactory (and from what I have seen it cannot fail to do so), such application is tantamount to finding a substitute. He makes two grains equally or more effectual than twenty grains, the which twenty grains had often to be repeated. The importance of this I need not insist upon. His method is the following—it can be put in practice by any one, the merest tyro in medicine: He makes a saturated solution of quinia in alcohol (he has tried with success the solution of the sulphate, also the citrate, and bisulph. in distilled water, but prefers the alcoholic solution of quinia), and of this solution he injects as much as is equivalent to two grains under the skin of the arm, avoiding the large veins. He makes a puncture with a spear-shaped lancet, pinching up for that purpose

the skin over the triceps on the arm, and with a syringe injects under the skin the solution as described above. Any syringe with a small pointed nozzle will answer the purpose.

He applies a small compress and light bandage to prevent the escape of the injected fluid. Now fifty cases, many of severe form, have been treated in this manner, and with more satisfactory results than by the old and recognized method. Dr. Chasseaud is preparing a detailed report of these cases, many of very severe form, which he will not delay to lay before the profession. One curious effect I may mention, and which would not be anticipated, is that generally after the injection the patients fall into a quiet sleep of some hours.

Now, if this application of quinia prove of that importance which I believe it to possess, Dr. Chasseaud will have a right to a reward from all the civilized governments of the world, seeing the immense economy of quinia it will effect in all hospitals, civil and military, all over the world. To the poor of malaria countries his discovery will be a boon beyond all price.—*Med. Times and Gaz.*, Aug. 2, 1862.

Use of Tobacco.—Sir RALPH MARLIN expresses, in his recent work on *Tropical Climates*, the following opinion of the use of tobacco:—

"There is another habit respecting which I shall venture to say a few words, because it is both a bad one and a comparatively new one—I mean the immoderate use of tobacco—a habit brought amongst us from the continent of Europe, on the cessation of the French revolutionary war. Young military men are apt to regard the habit as a manly one, until severe dyspepsia, giddiness, shattered nerves, sallow complexion, disturbed action of the heart, and other symptoms show themselves, and then it is frequently too late to stop. 'The sallow complexions, black, broken, and unsound teeth' of the Germans are matters of notoriety to all travellers. 'You may,' says one of them, 'smell a German in any part of the room, or scent him at a quarter of a mile's distance in the open air, if the wind be favourable.'

"Much is talked of the good effects of tobacco-smoking in damp and malarious localities; by persons who, in defiance of geographical differences, carry the habit

wherever they go—from the marshes of Burmah to the arid plains of Hindustan, forgetting that, meanwhile, in the language of Cassio, 'they put an enemy in their mouths to steal away their brains;' but I think there is good reason to question the benefits of this habit of smoking even in the fatherland of fog and damp, or that tobacco ever acts as a preventive to any disease, and least of all to fever.

"The truth is, that many persons puff themselves into the good graces of snobs and spoonies like themselves, and use cigars by the score now, as Lord Chesterfield drank and smoked in his time, notwithstanding his aversion to wine and tobacco — 'because he thought such practices very genteel, and made him look like a man.' How his lordship may have looked under the united influence of wine and tobacco, his biographers have failed to relate; but we all know how our modern 'spoonies' and 'snobs' in our thoroughfares look, after a course of cigar-smoking alone."

Vaccination in England.—The number of persons vaccinated last year in England was 432,806, of which 425,739 were successful, and of this number 100,641 were above a year old. The number of registered births in the unions making these returns was 685,646, more than double the number of infants vaccinated by the public vaccinator. The number of the vaccinators was 3731.

Mortality from Coal Mine Accidents in Great Britain.—The deaths from accidents in coal mines in 1857 were 1122; in 1858, 930; in 1859, 914; in 1860, 1109; and in 1861, 943; being an average for the five years of just over 1000.

Railway Accidents in Great Britain.—During the year 1861, 284 persons were killed and 383 injured by accidents on railways in the United Kingdom. Of this number, 216 were killed and 836 injured in England and Wales; 39 were killed and the same number injured in Scotland; and 29 were killed and 8 injured in Ireland. 46 passengers were killed and 781 injured from causes beyond their own control.—*Lancet*, Sept. 27, 1862.

Disregard by Military Commanders of the Counsels of Medical Men on Sanitary

Matters.—Sir RANALD MARTIN, in his late work on *Tropical Climates*, makes the following statements:—

"When very young, and serving in one of the most pestilential countries known in India, I made a topographic examination of the localities, and reported the result to my commanding officer, suggesting at the same time what I regarded as the most suitable arrangement for encamping the men against the coming rainy season, when it was well known that a great increase of deadly fever would result. The answer was, 'I'll be — if I do.' Now, here was no blundering lieutenant, but, on the contrary, one of the most able and well-informed field-officers I have ever known; yet, such was his treatment of a grave matter of duty, and the neglect of which, before the year was over, cost him his life. Again, on landing at Rangoon, during the first Burmese war, I was credibly informed that the superintending surgeon of the Bengal division there had warned the officer commanding that, without fresh animal food and vegetables, the European soldiers must perish from scurvy. The answer was characteristic, and somewhat more civil than that granted to me. It was this: 'Medical opinions are very good, sir—when they are called for.'"—*Ed. Med. Journ.*, August, 1862.

Ventilation of Armour-clad Ships.—We have already alluded to this subject in our No. for September last (p. 197), but as we are rapidly building in this country a fleet of iron-clad ships, and as it has been stated that the crew of the Monitor, during a storm at sea, were nearly suffocated for want of fresh air, there is reason to fear that the ventilation of these vessels has not been duly attended to, and that we are here committing the fearful mistakes made in Great Britain in the construction of their iron-clads. Some further remarks may, therefore, tend to call attention to the subject.

The following just observations are from a late No. (Oct. 4) of the *Lancet*:—

"We grant that the offensive properties of an armour-plated ship are the primary objects of her construction, and that these may be as diabolically effective as could be desired; but we aver that in proportion as the offensive power has hitherto been increased, the defensive power has been

diminished. True, an iron-cased ship may afford greater protection to her crew from shot and shell than a wooden ship, but it has been overlooked that to whatever extent this protection has been obtained, to a like extent the vessel has been made less fit for habitation. It has been forgotten, in short, that shot-proof ships might require for their due working disease-proof sailors. Experience has again and again showed that, in time of war, for one man lost from the casualties of actual contention, several have been needlessly lost from disease. The conditions which have given rise to this additional, most wasteful, and most unnecessary expenditure of life unhappily exist to almost as great an extent in peace as in war, and the chief of these conditions has been clearly set forth by no less an authority than the distinguished Secretary of the Admiralty. In the debate on the naval estimates, in the course of the last session of Parliament, he said—

"Everybody who has been on board ship in the lower deck will know that the atmosphere is sufficiently bad to provoke almost any kind of disease, especially phthisis and fevers, as has been shown by the returns from the Mediterranean fleet."

"This was said of our wooden ships of war: but when we reflect that in armour-plated ships the port-holes are largely diminished in number and greatly lessened in size, and that, the more effectually to strengthen the walls of the vessel and prevent the intrusion of shot or shell, no aperture of communication with the interior is permitted to exist which can possibly be done away with, we are justified in concluding that the state of the between-decks referred to by Lord C. Paget will in these ships be greatly intensified. When, moreover, we remember that, from the character of these vessels, and as shown by experiment, the temperature of the between-decks is higher than in vessels of any other class—that in hot weather the iron walls suck up heat with the avidity of a salamander—and that it is far from improbable that the practicability of keeping the 'bilges' sweet has been forgotten in the progress of building (as in the case of the *Warrior*)—we may also reasonably infer that the principal conditions which concur in increasing the foulness of the between-decks in wooden are also found in a higher degree in armour-plated vessels. Hence

we are led to the ultimate conclusion that these latter ships promise to be much more destructive to their crews than any enemy; at any rate, to estimate the power of destruction by their offensive capabilities alone is a delusion."

Now new modern armour plated ships are far more easily ventilated than the large ships of the old construction; and where steam power is at command there can be no excuse for deficient ventilation. But the proper ventilation of ships should be considered of equal importance as their speed and fighting qualities, and be equally provided for in their plans for construction.

Dawn of Animal Life.—A late number of the Westminster Review contains under this title a review of the recent researches by GREENE, CLAPAREDE, LACHMANN, WILLIAMSON, CARPENTER, and JUKES, into the structure and development of the protozoa, and the astounding part which these little and otherwise insignificant animals appear to have played, in periods of inconceivable remoteness, as the engineers to whom was intrusted the construction of much of the crust of the globe which we inhabit. And even in the present day they are still at work, forming, at a depth of 2 000 fathoms, the bed of the ocean between Europe and North America, and by throwing up sand-banks, as they are termed, blocking up harbours, changing the course and depth of straits and channels, silently working out what may ultimately become a serious revolution in the apparent destiny of commercial emporia. Tracing the structure of these creatures from their most primitive form in the *Rhizopoda reticulata*, with its simple plastic body substance, or "sarcode," throwing out filaments, which it can again withdraw, and the shell bearing forms or foraminifera, "tens of thousands of which may be contained in a pill-box," while others, as the fossil nummulites, are two or three inches in diameter, through their several forms and orders—the author passes to the consideration of that of the sponges. From this he passes on to the infusoria, the lowest animals provided with a mouth. Not only are these three groups of protozoa so connected by intermediate forms, as in structure and modes of reproduction insensibly to glide one into another, but it is pointed out that, among the foraminifera, so infinitely diversified are the individual

forms that classification into distinct species is almost set at defiance, Dr. Williamson remarking that "examples abound which we are unable to locate with confidence, and we are at length tempted to believe that amongst the foraminifera specific distinctions have no existence. . . . Nearly every species is capable of adapting itself with endless modifications of form and structure to very different habitats, in brackish and in salt water, in the several zones of shallow and abyssal seas, and under every climate from the poles to the equator." And as these specific differences are so undefined among animals of this lowest type of animal life, so are naturalists still at loss to draw the line which shall mark off these from vegetable organisms—as much as at a loss now, when research has been pushed so far on the confines of both kingdoms, as they were when rougher modes of investigation were alone had recourse to. An interesting illustration of the difficulty is met with in comparing the modes of reproduction of admitted animals and admitted vegetable growths. Thus, in the sponges, not only is there met with reproduction by gemmation, but in the *Spongilla* reproductive seed-like bodies have been discovered, and in the *Tethya* true germ cells or ova and spermatozoa in every stage of development. On the other hand, in many cryptogamic plants, especially in the algae, are there found zoospores or spermatozooids, which endowed with independent motion appear to perform an office identical with that of animal spermatozoa. In some algae they thus enter a pistil-like organ, the sporangia, evidently for the purpose of fecundation. When, while swimming about, they approach the sporangia, they are said to make straight for it as though gifted with volition, and if they fail to enter it at once they repeat the effort. The general result of the inquiries of the naturalist mentioned, is not only to show the importance of the protozoa in the scheme of our mundane universe, but they bring out the interesting truth that there are animals constituted by an almost homogeneous gelatinous substance, in which this substance subserves all the purposes to which special structures are devoted in animals higher (as we term them) in the scale of organization, but while "higher," far less numerous, and apparently far less stupendous as to the work which they accomplish. In these lowest animals the same gelatinous

material subserves at once the functions of nutrition, circulation, respiration, and generation. "In the absence of muscular fibres all the protozoa possess the power of extension and contractility; and, notwithstanding the absence of nervous fibres, they clearly evince in their actions the existence of sensation and volition, and appear susceptible of sensitive impressions. With the naked infusoria the sense of touch exists, undoubtedly, over the whole body. But, besides this, it appears specially developed in many species in the long cilia, forming vibratile circles, or in those movable foot-like and spout-like prolongations of the body. In the same manner, it is probable that they have the sense of taste also; for they seem to exercise a choice in their food, although no gustatory organ has yet been found. All species, whether they have red pigment points or not, seem affected by light. Without doubt, therefore, their vision consists simply in discriminating light from darkness, which is accomplished by the general surface of the body, and without the aid of a special optical organ. . . . The way in which the *Rhizopoda* seize their prey certainly seems to indicate the presence of distinct volition; but it is probable that the phenomena observable are manifestations only of unconscious 'reflex action.'"—*Med. Times and Gaz.*, Aug. 2, 1862.

Discoveries of Fossil Human Remains.—

It is said that M. MALAISE, a Belgian palæontologist, has discovered in the cave at Engihoul, near Liège, portions of two lower jawbones and three pieces of skulls, undoubtedly human. In each jawbone the last three molars remain, all but two of which are much worn, and one is decayed. The pieces of skull are identified as fragments of the occipital and parietal bones; one of the latter is remarkably thick (eight millimètres). In the colour, degree of decomposition, and position, the human bones were indistinguishable from the other animal remains which were found under the stalagmite. This stalagmite is less than two inches thick, and is overlaid by a bed of porous and pebbly silt, varying in thickness from two to three feet. Detailed facts relating to this discovery will be given in Sir Charles Lyell's forthcoming work on the Antiquity of Man. This is not the first instance of the discovery of human remains in the cave at Engihoul, and it would be

most interesting to compare the remains there discovered with those which have been derived from the neighbouring cave of Engis.—*Med. Times and Gaz.*, Oct. 11, 1862.

The Glasgow Chair of Medicine.—Dr. W. T. GAIRDNER, of Edinburgh, has been appointed by the Home Secretary to the Professorship of Practice of Medicine in the University of Glasgow, vacant by the resignation of Dr. John Macfarlane. It will be a source of general satisfaction to hear of his being placed in a position for which he is so eminently qualified by his pathological and medical labours, and by his success as a clinical teacher. We have reason to believe that the Home Secretary, in filling the appointment, was much influenced by the high reputation which Dr. Gairdner enjoys among his professional brethren in London. We are confident that the new professor will justify his choice, and contribute greatly to the fame of the Glasgow School of Medicine, and be a worthy colleague of the eminent men who have raised it to its present position.—*Med. Times and Gaz.*, Sept. 27th, 1862.

Dante a Physician.—Records recently found in the archives of Florence seem to show that Dante was inscribed at that University in the class of doctors and pharmacists.

Congress of German Naturalists and Physicians.—The thirty-seventh annual meeting of this Congress was opened at Carlsbad on the 18th of September. More than 500 members from all parts of Germany were present. The congress divided itself into 11 sections.

Explosive Copper Gas-pipes.—Dr. T. L. PHIPSON has written to *The Times*, calling attention to the dangerous character of a substance formed when copper or bronze pipes have been submitted for a long time to the action of coal-gas. The substance is a combination of copper and acetylene; it is highly explosive, and when dry detonates with great violence if rubbed, struck, or heated. He writes:—

"Already some accidents have occurred, and some workmen have lost their lives while cleaning large copper gas-pipes from

this circumstance. No such explosive compound appears to be formed when iron or lead are used. It is evident that large copper gas-pipes are unsafe; and that some other metal should be substituted for the copper, as the latter may give rise to explosions at any moment. As concerns small pipes constructed of this metal, they should not be allowed to get foul, and when about to be cleaned hydrochloric acid should be introduced into them for about ten minutes before they are submitted to any heat or friction. Hydrochloric acid decomposes the explosive compound, combines with the copper, and puts the gas acetylene at liberty. The acid may then be washed out with hot water."—*Med. Times and Gaz.*, Sept. 27th, 1862.

[Copper is too expensive a metal to be ordinarily used in this country for gas-tubing, nevertheless, a knowledge of the above fact may be useful.]

Carbonic Acid Gas, as an Anæsthetic. has been employed by M. OZANAM. He mixed three parts of the gas with one part of atmospheric air in a large India-rubber bag provided with a flexible tube and a mouth-piece, by which the patient inhales the mixture. Anæsthesia is stated to be produced in about two minutes; it is accompanied by acceleration of the respiratory movement and copious perspiration on the face. The moment the inhalation is stopped the patient awakes to perfect consciousness.—*Lancet*, Oct. 11, 1862.

Public Analyst.—The adulteration of articles of food and drink has been carried to such a fearful extent in Dublin, that the corporation of that city has been roused to the necessity of appointing a public analyst, and Prof. Cameron has been elected to the office. His business will be to analyze all articles of food or drink purchased in the city, which may be submitted to him for the purpose. It is stated on good authority that the health of the people is much injured by the deleterious nature of the articles they daily consume.

A Monument to the Memory of Sir Humphrey Davy is about to be erected on the north side of Mount's Bay, near Penzance, where he was born.